

DDI 1 FA1

Answer the following question:

Shona works in a cell phone store after school four days per week for three hours each day plus an eight hour shift on Saturday. She sells an average of one cell phone per shift on weekdays, but on Saturday she sells one each hour. If she earns a 10% commission on each cell phone and the cell phones retail for an average of \$200, how much does Shona earn in commission each week? \$/wk

$$\begin{array}{l}
 4 \text{ d/wk (wk d)} \checkmark \\
 3 \text{ h/d (wk d)} \\
 \checkmark 8 \text{ h (Sat)} \quad 1 \text{ d/wk} \\
 1 \text{ p/sh (wk d)} \checkmark \\
 \checkmark 1 \text{ p/h (Sat)} \\
 \$200/\text{p} \checkmark \\
 \checkmark 10\% \text{ comm.}
 \end{array}
 \quad
 \begin{array}{l}
 1 \text{ p/sh} \cdot 4 \text{ sh/wk} = 4 \text{ p/wk} \\
 4 \text{ p/wk} \cdot \$200/\text{p} = \$800/\text{wk} \\
 8 \text{ h/wk} \cdot 1 \text{ p/h} = 8 \text{ p/wk} \\
 8 \text{ p} \cdot \$200/\text{p} = \$1600/\text{wk} \\
 \$800/\text{wk} + \$1600/\text{wk} = \$2400/\text{wk} \\
 \$2400 \cdot 10\% = \$240/\text{wk}
 \end{array}$$

DDI 2p FA1

Answer the following question:

Samuel works in a cell phone store after school five days per week for four hours each day plus a six hour shift on Saturday. He sells an average of two cell phones per shift on weekdays, but on Saturday he sells two each hour. If he earns a 5% commission on each cell phone and the cell phones retail for an average of \$700, how much does Samuel earn in commission each week? \$/wk

$$\begin{array}{l}
 \$700/\text{p} \\
 5\%/\text{p} \\
 \left. \begin{array}{l} 2 \text{ p/h Sat} \\ 6 \text{ h/s Sat} \end{array} \right\} \\
 \left. \begin{array}{l} 2 \text{ p/s WD} \\ 5 \text{ d/wk WD} \\ \times 4 \text{ h/d WD} \end{array} \right\}
 \end{array}
 \quad
 \begin{array}{l}
 \text{WD } (2 \text{ p/s})(5 \text{ d/wk})(4 \text{ h/d}) = 10 \text{ p/wk} \\
 \text{Sat } (2 \text{ p/h})(6 \text{ h/s})(1 \text{ s/wk}) = 12 \text{ p/wk} + \\
 (22 \text{ p/wk})(\$700/\text{p}) = \$15400/\text{wk} \quad 22 \text{ p/wk} \\
 (5\%)(\$15400/\text{wk}) = \$770/\text{wk}
 \end{array}$$

DDI 2a FA1

Answer the following question:

Samuel works in a cell phone store after school five days per week for four hours each day plus a six hour shift on Saturday. He sells an average of two cell phones per shift on weekdays, but on Saturday he sells one each half-hour. If he earns a 8% commission on each cell phone and the cell phones retail for an average of \$700, how much does Samuel earn in commission each week?

$$\checkmark \$700/p$$

$$\checkmark 8\% \text{ comm}$$

$$\checkmark 1p/.5h \text{ Sat}$$

$$\checkmark 6h/s \text{ Sat}$$

$$\checkmark 5d/w \text{ WD}$$

$$4h/d \text{ WD}$$

$$\checkmark 2p/s \text{ WD}$$

$$\$700/p (8\%) = \$56/p$$

$$\text{Sat } (1p/.5h)(6h/s) = \frac{6}{.5} p/s = 12p/s (1s/w)$$

$$\text{WD } (2p/s)(5d/w)(1s/d) = 10p/w$$

$$10p/w + 12p/w = 22p/w$$

$$(\$56/p)(22p/w) = \$1232/w$$

DDI 4T FA1

Answer the following question:

Siouxie works in a cell phone store after school three days per week for four hours each day plus a seven hour shift on Saturday. She sells an average of one and one-half cell phones per shift on weekdays, but on Saturday she sells one every three-quarters of an hour. If she earns an 8% commission on each cell phone and the cell phones retail for an average of \$550, how much does Siouxie earn in commission each week? \$/w

Knowns	Math step	Reasoning
8% Comm.	$8\%(\$500/p) = \$44/p$	Commission earned per phone
\$550/p	$\text{SAT } (7h/s)(1p/0.75h)(1s/w) = 9.33p/w$	find how many phones/wk
7 h/s SAT	$\text{WD } (1.5p/s)(3d/w)(1s/d) = 4.5p/w$	find how many phones/wk
1p/0.75h SAT	$9.33p/w + 4.5p/w = 13.83p/w$	Total phones sold per week
3 d/wWD	$(\$44/p)(13.83p/w) = \$608.52/w$	find total commission earned
4 h/d WD		
1.5 p/s WD		